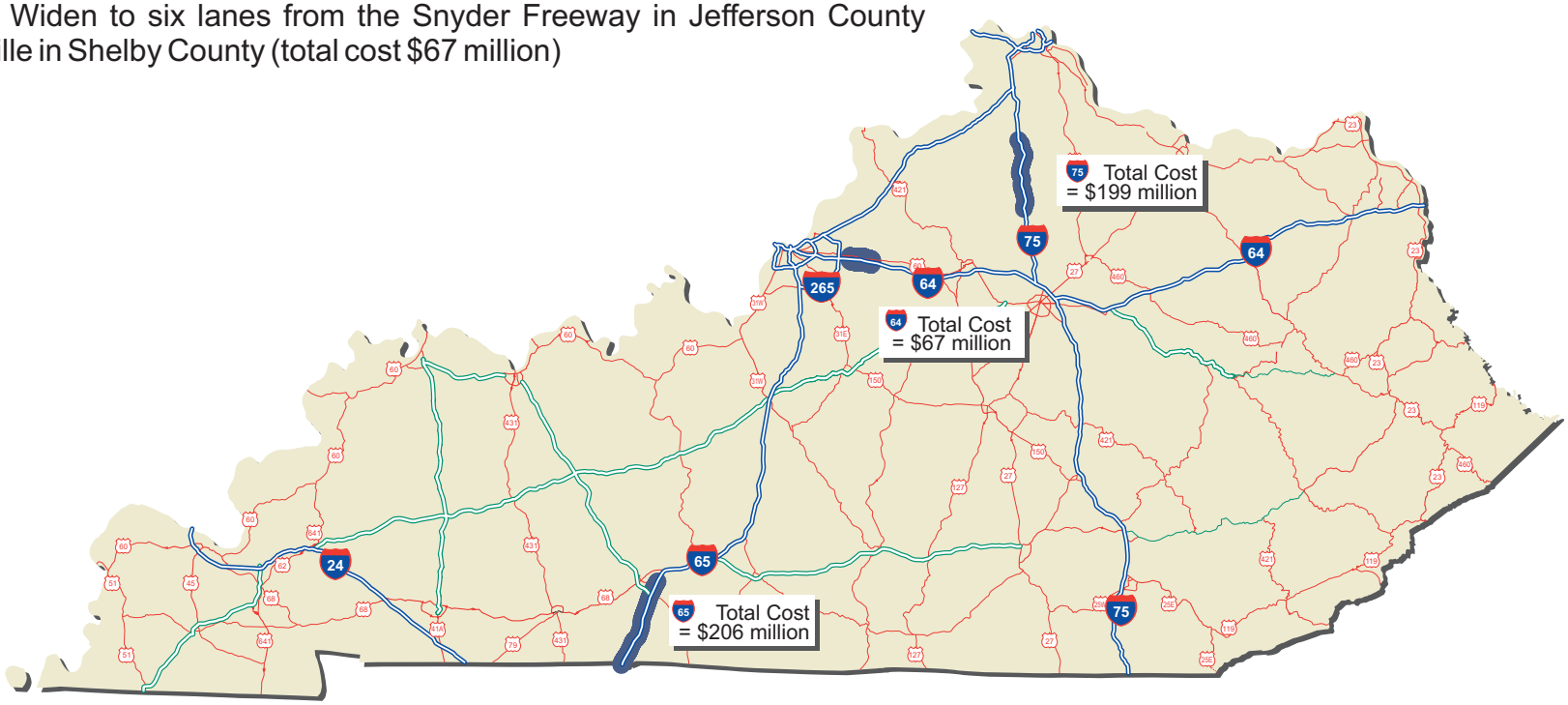
APPENDIX A
"GARVEE" Status

During the 2005 and 2006 legislative sessions, the KYTC was provided enabling legislation and approval to pursue a specific group of interstate widening projects through $440 million of innovative financing known as "Grant Anticipation Revenue Vehicles (GARVEEs)." This financing technique is permitted by federal law and involves the commitment of future federal-aid appropriations as leveraging for current year highway improvements. The primary benefit of such an arrangement is that major highway improvements can be purchased at today's prices and paid for with interest over a multi-year timeframe. The application of the GARVEE principle is very similar to home mortgage financing but is used to purchase major highway investments when "pay-as-you-go" is not the desirable course.

As permitted by the 2005 and 2006 General Assembly, the KYTC has let to construction the following major interstate widening projects:

- **Interstate 65:** Widen to six lanes from the Tennessee State line to Bowling Green (total cost $206 million)
- **Interstate 75:** Widen to six lanes from the end of the current six-lane section in northern Scott County to the current six-lane section south of KY 22 in Grant County (total cost $199 million)
- **Interstate 64:** Widen to six lanes from the Snyder Freeway in Jefferson County toward Shelbyville in Shelby County (total cost $67 million)



Each of these interstate widening projects constitutes a necessary investment in Kentucky's future. The need to accommodate both people movement and freight movement in each of these highway corridors is critical to Kentucky's economy in the years ahead. Each of these routes (see the map) currently carries a disproportionately high percentage of truck traffic, and forecasts call for the number of trucks in the traffic stream to continue to increase as the North Highway American Free Trade Agreement (NAFTA) continues to yield higher and higher volumes of freight from Latin America to Canada.

In addition to the major interstate widening projects, the 2008 General Assembly authorized $231 million in GARVEE bonds for preconstruction activities on the Louisville-Southern Indiana Ohio River Bridges project in Jefferson County. An additional $105 million was authorized for the project during the General Assembly's 2010 Special Session. To date, all $336 million of Louisville Bridge GARVEE bonds have been sold. In 2010, $100 million were sold to finance preconstruction activities including the acquisition of rights-of-way. In 2013, the remaining $236 million were sold to support construction expenditures made to Walsh Construction Company under their design-build contract.

The General Assembly, during the 2010 Special Session, also authorized the sale of $330 million in GARVEE bonds to fund the replacement and construction of two new bridges over Kentucky Lake and Lake Barkley on US 68/KY 80. These bonds will be sold as construction gears up in the coming biennium.

The KYTC has worked with FHWA to engage in this “GARVEE package” to strategically leverage our federal highway program and accelerate the construction of these key projects across the Commonwealth. As we look to the biennium ahead, Kentucky's strategic use of the GARVEE program has resulted in just over $1.1 billion in GARVEE supported projects completed or underway since the first authorization in 2005. All of these projects address proven needs and offer major improvements to the transportation system in the Commonwealth.

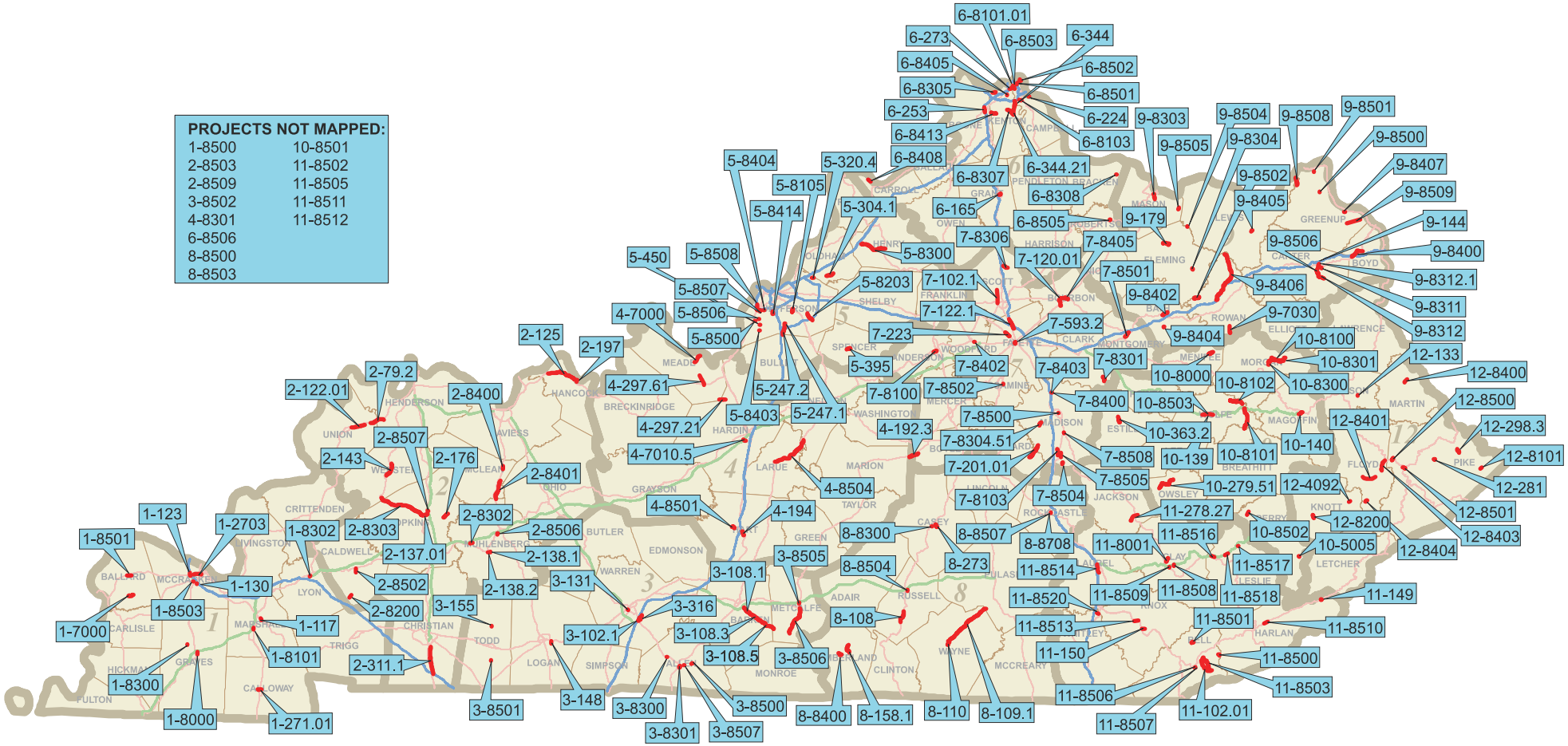
To view list of GARVEE projects go to http://transportation.ky.gov/Program-Management/Pages/2014-Final-Highway-Plan.aspx.

APPENDIX B

2009 BOND PROGRAM “SPB” PROJECT STATUS

During the 2009 legislative session, the KYTC was authorized to sell State Road Bonds in the amount of $400 million to supplement state revenues dedicated to the state projects (SP) element of the Highway Plan. This was deemed necessary because the projects’ costs contained in the Highway Plan exceeded revenue expectations by $3 billion due to a failed effort to increase the state gas tax in the Year 2000. At this time, the KYTC has obligated all of the $400 million toward “SPB” projects as shown in the map below.

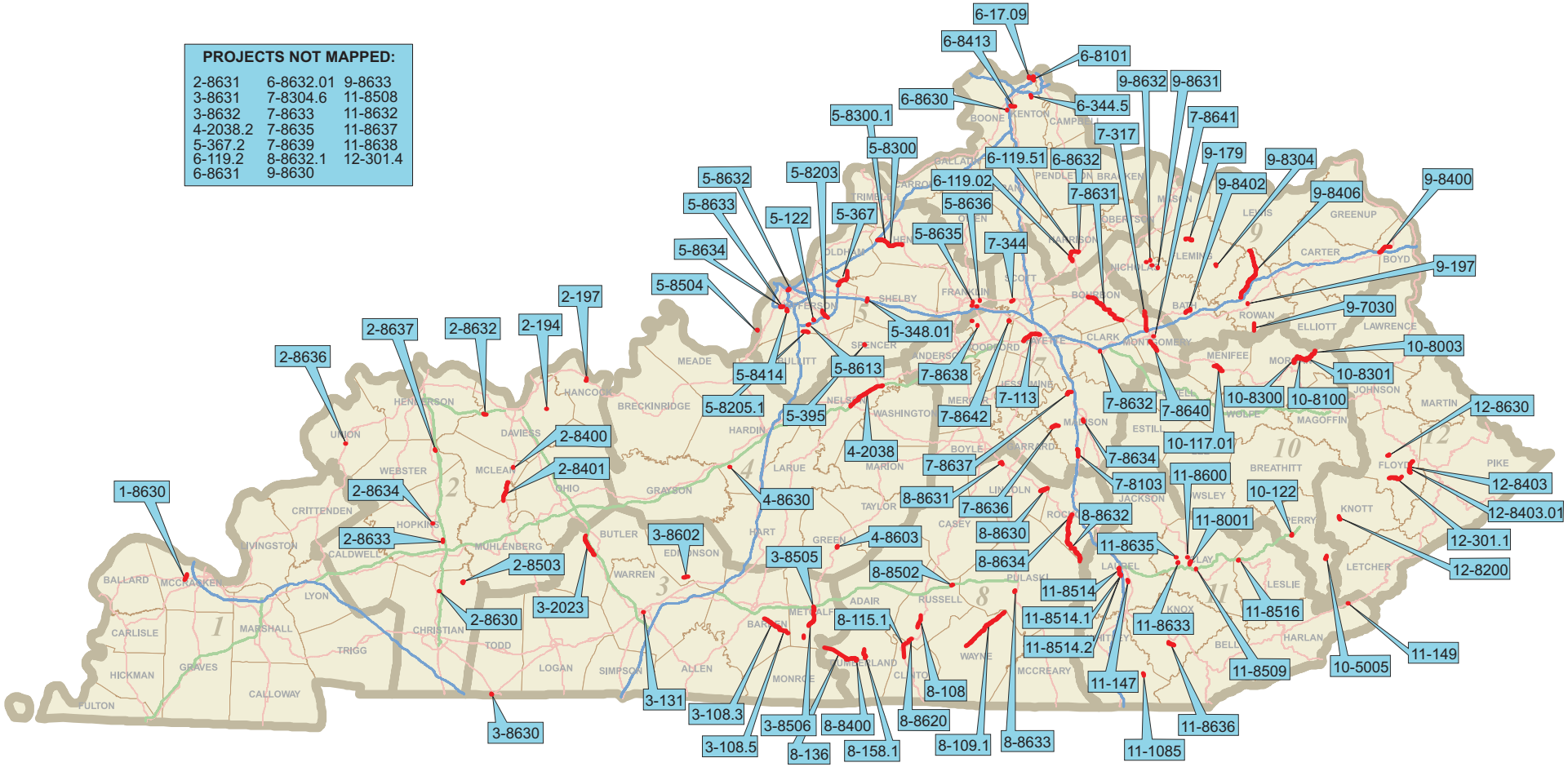
To view list of “SPB” projects go to http://transportation.ky.gov/Program-Management/Pages/2014-Final-Highway-Plan.aspx.



2010 BOND PROGRAM “SB2” PROJECT STATUS

The 2010 Enacted Biennial Highway Plan was developed with the decision to recommend an additional $400 million of state bond sales. Projects prioritized under this heading are noted by the acronym “SB2.” The “SB2“ projects are shown in the map below. To date, KYTC has obligated approximately $290 million of “SB2” projects.

To view list of “SB2” projects go to http://transportation.ky.gov/Program-Management/Pages/2014-Final-Highway-Plan.aspx.



APPENDIX C
KENTUCKY'S "MEGA-PROJECTS"

As the 2014 Recommended Highway Plan was developed, strong consideration was given to the funding needs associated with four "Mega-Projects" located in Kentucky. The term "Mega-Project" is a reference to the fact that each project will cost near, or in excess of, $1 billion. As the following map shows, these projects are (1) the Louisville Bridges project, (2) the Interstate 71/75 Brent Spence Bridge congestion relief project in northern Kentucky, (3) the Proposed Interstate 66 project in southeastern Kentucky, and (4) the Proposed Interstate 69 project in far western Kentucky. Each of these projects would be an expensive, but welcome, addition to Kentucky's highway system.

Each of the four "Mega-Projects" is underway, with varying levels of progress achieved. This appendix provides a description, an approximate total cost, and a brief report on the progress to-date for each project.

The Louisville Bridges

The Louisville Bridges project is located in the Louisville metropolitan area and involves a two-part approach to resolving traffic congestion problems in the region. The existing highway network features a myriad of interstate highway facilities (Interstates 64, 65, and 71) that all meet in a tangled maze of ramps known locally as "Spaghetti Junction" in downtown Louisville. Immediately associated with Spaghetti Junction is the Interstate 65 Kennedy Bridge, which links downtown Louisville with Jeffersonville, Indiana. Since there are no true outer beltways linking the Kentucky and Indiana portions of the Greater Louisville Area, virtually all north-south and east-west traffic is forced through Spaghetti Junction. This creates traffic delays of major proportions during peak morning and afternoon rush hours.

While Spaghetti Junction and the Kennedy Bridge certainly need to be modernized, transportation professionals understand that a major culprit in downtown Louisville's traffic congestion is the absence of a "relief valve." To truly accommodate future traffic in the Louisville area, it is essential to connect together the dangling ends of Interstate 265 east of Louisville. This new "East End Bridge" will provide an alternative route to Spaghetti Junction and will work in concert with the "Downtown Bridge" to move traffic efficiently through the region.

Much has been done over the past few years to advance the Louisville Bridges project. When the Record of Decision was signed in 2003, the price tag for this multi-year project totaled $4.1 billion. Early in 2011, at the direction of Governor Beshear, Indiana Governor Mitch Daniels, and Louisville Mayor Greg Fischer, project engineers completed a thorough review of every segment of the project and identified some $1.2 billion in cost-savings measures. Through the use of innovative project delivery techniques, a compressed construction schedule and faster project delivery have been obtained. Kentucky and Indiana split the procurement of the project with Kentucky procuring the Downtown Bridge and Spaghetti Junction contract and Indiana procuring the East End Bridge and Approaches. Both procurements were done in late 2012/early 2013, with both resulting in substantial construction cost savings and accelerated construction schedules. Both the Downtown and East End portions of the Louisville Bridges Project are currently scheduled to be open to traffic by late 2016. More specific project details can be found at www.kyinbridges.com.

The Interstate 71/75 Brent Spence Bridge

The Interstate 71/75 Brent Spence Bridge is the focal point for some of the heaviest traffic volumes in Kentucky as these two major north-south interstates cross the Ohio River between Covington, Kentucky and Cincinnati, Ohio. This bridge not only serves traffic between two major urban centers, but it also connects the downtown areas with the Greater Cincinnati/Northern Kentucky Airport, located in Boone County, Kentucky. In recent years, the existing double-deck bridge has been “re-striped” to carry additional lanes of traffic and, although the bridge is still structurally strong as indicated by its sufficiency rating of 59 out of a possible 100 points, it is functionally outdated. Recognizing the old bridge's inability to meet today's traffic demands, and knowing that the situation will only worsen in the years ahead, metropolitan transportation planners are working with the KYTC and the Ohio Department of Transportation (ODOT) to craft a reasonable funding solution.

Proposed Interstate 66

The Proposed Interstate 66 (TransAmerica) Corridor in southeastern Kentucky extends from Interstate 65 near Bowling Green along the Cumberland Parkway to west of Somerset, from which it departs and extends north and east around Somerset, then along KY 80 and south to Interstate 75 south of London. From Interstate 75, the Corridor extends eastward along the Hal Rogers Parkway to Hazard before heading east to US 23 south of Pikeville. From US 23 south of Pikeville, the Proposed Interstate 66 would extend across the rugged mountainous terrain of Pike County to the existing US 52 (Proposed Interstate 74 Corridor) near Matewan, West Virginia. Along this course, the Proposed Interstate 66 would pass through some of the most severely economically distressed counties in the Appalachia region.

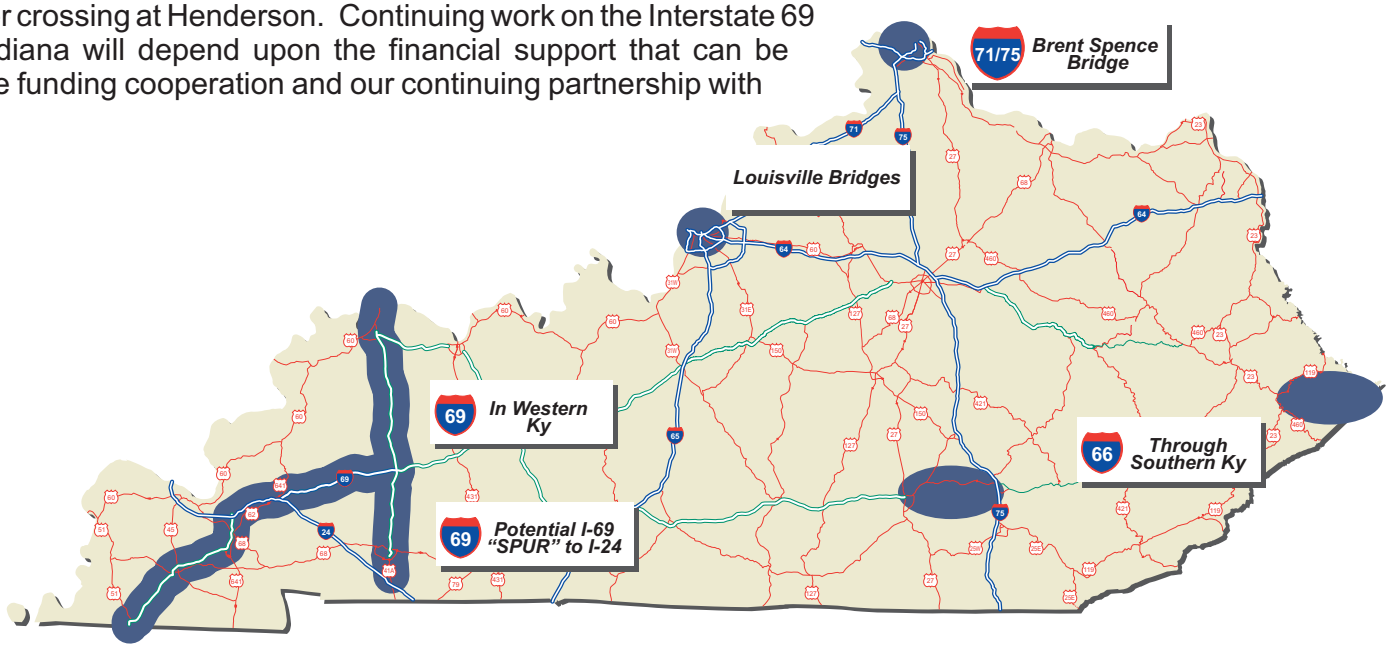
At the present time, there are three independent segments of the Proposed Interstate 66 that have been involved in some degree of highway project development. The first of these segments is the Northern Bypass of Somerset, which will serve to provide a high-speed connection from the Cumberland Parkway to KY 80 east of Somerset. Preliminary engineering and environmental studies have been completed, with design and right-of-way activity underway. Construction of the Northern Somerset Bypass is complete from the Cumberland Parkway east to US 27 north of Somerset. Construction from US 27 north to KY 80 east of Somerset is expected to cost $127 million in 2014 dollars.

The second active Proposed Interstate 66 project in southeastern Kentucky is the connector between KY 80 east of Somerset and Interstate 75 south of London. Preliminary engineering, environmental work, and the financial plan are currently on hold for this section, pending resolution of funding issues. There are many environmental issues associated with this project including involvement with the Daniel Boone National Forest, a wild and scenic stretch of the Rockcastle River, and numerous cliffline, cave, and cultural/historic concerns. There has been, and will continue to be, considerable public involvement and coordination with resource agencies to minimize the environmental effects of this project. The total estimated cost of the Somerset to London section of the Proposed Interstate 66 is over $500 million.

The third section of the Proposed Interstate 66 that was being developed is the portion of the route between US 23 south of Pikeville and US 52 (Proposed Interstate 74) in West Virginia. An Environmental Impact Statement for this segment of Interstate 66 has been completed, and the preliminary right-of-way plans have been completed for a 6-mile section in Pike County. While environmental issues have proven to be minimal in the Pike County area, the rugged terrain makes this one of the most expensive sections of the Proposed Interstate 66 to build. It is expected that it will cost more than $1 billion to complete this connection between US 23 and US 52. Also due to funding concerns, this segment of I-66 is on hold at this time.

Proposed Interstate 69

The Proposed Interstate 69 corridor is being pursued in some manner by every state it traverses, from south Texas to the Michigan border with Canada. The impetus for Interstate 69 is Latin American trade and the overland transportation need to link Latin America with Canada and the northeastern United States. The states involved in this project are Texas, Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, Indiana, and Michigan. An Environmental Impact Statement has been prepared for the entire route, with the "purpose and need" of the project focused squarely on freight movement.

In Kentucky, Interstate 69 will follow the existing Purchase Parkway from the Tennessee State line to Interstate 24, then Interstate 24 to the Western Kentucky Parkway, then the Western Kentucky Parkway to the Pennyrile Parkway, then the Pennyrile Parkway north to Henderson. At Henderson, a new route (including a new Ohio River bridge) will be required to connect to Interstate 64 in southern Indiana. Both Tennessee and Indiana are actively engaged in pursuing their own segments of Interstate 69, and each state has cooperated in studies to assess connections at the state lines.

For Interstate 69 to become fully functional in Kentucky, it is expected that the existing parkway system will have to be upgraded. The Purchase, Western Kentucky, and Pennyrile Parkways are all limited access, four-lane divided highways, but there are spot locations where access control would have to be tightened and shoulder widths, clear zones, and bridge dimensions addressed before interstate highway design standards are achieved in full. It is expected that such upgrades could cost $700 million or more if full federal interstate standards were to be achieved. The 2014 Highway Plan includes smaller projects aimed at gaining approval for formal federal I-69 designation with more minimal investment. At Henderson, the new route and its new Ohio River bridge will likely cost an additional $800 million or more to complete. The KYTC has recently completed a study of the parkway upgrade needs from Interstate 24 to Henderson and has worked with Indiana to develop a Draft Environmental Impact Statement for the new Ohio River crossing at Henderson. Continuing work on the Interstate 69 connection between Kentucky and Indiana will depend upon the financial support that can be garnered for the project through bi-state funding cooperation and our continuing partnership with the Federal Highway Administration.